Self-Study Module

The Power of the Grape: Research on Concord grapes, grape polyphenols, and heart health, plus emerging areas of study

Answer Key:

1. The skin of the Concord grape has a high concentration of:
   a. anthocyanins.
   b. flavanols.
   c. phenolic acids
   d. stilbenes.

2. On average, the antioxidant potential of a serving of Concord grape juice is about the same as a serving of:
   a. apple juice.
   b. white grape juice.
   c. red wine.
   d. tea.

3. Studies have demonstrated that Concord grape juice can positively impact:
   a. triglyceride levels.
   b. LDL cholesterol levels.
   c. the rate of LDL oxidation.
   d. the LDL/HDL ratio.

4. Research suggests that Concord grapes may deliver the following cardiovascular benefits except:
   a. supporting healthy blood flow.
   b. having an anti-clotting effect.
   c. maintaining healthy blood pressure in certain populations.
   d. sustaining a normal heart rhythm.

5. The polyphenols in grape juice have been shown to stimulate the production of ___ which can promote arterial relaxation.
   a. nitric oxide
   b. nitric acid
   c. carbon dioxide
   d. lactic acid
6. Research suggests that the anti-platelet effect associated with drinking Concord grape juice are attributed to the presence of:
   - proanthocyanidins and other flavonoids.
   - tocopherols and tocotrienols.
   - oxalic acid and phytic acid.
   - xanthophylls and other carotenoids.

7. One study of the effect of Concord grape juice on arteries found that those who drank grape juice for two weeks had improved flow-mediated dilation of the _____ artery.
   - fibular
   - popliteal
   - brachial
   - right coronary

8. Based on one study on men and women with prehypertension or stage 1 hypertension, results suggest that the consumption of Concord grape juice may help lower _____ blood pressure.
   - diastolic
   - nocturnal
   - systolic
   - ambulatory

9. Emerging research suggests that Concord grapes may benefit those with:
   - rheumatoid arthritis.
   - osteoporosis.
   - age-related cognitive decline.
   - heart failure.

10. A study on the consumption of Concord grape juice and human immunity found that subjects who consumed 100% grape juice made with Concord grapes and with added vitamin C had greater numbers of:
    - gamma delta T-cells.
    - alpha beta T-cells.
    - basophils.
    - monocytes.

11. A healthy mix of polyphenols can be obtained by consuming a diet rich in:
    - monounsaturated oils.
    - nuts and seeds.
    - colorful fruits and vegetables.
    - fat-free or low-fat dairy foods.
12. Blue and purple fruits and vegetables account for about ___ percent of total produce intake.
   a. three
   b. seven
   c. ten
   d. twelve

13. The most popular blue/purple fruits and vegetables are:
   a. grapes, 100% grape juice, and raisins.
   b. grapes, blackberries, and blueberries.
   c. raisins, 100% grape juice, and purple cabbage.
   d. raisins, eggplant, and blueberries.

14. A ____ glass of 100% grape juice made with Concord grapes counts as one serving of fruit.
   a. 2-oz.
   b. 4-oz.
   c. 6-oz.
   d. 8-oz.